

**IN THE CLAIMS**

Please amend the claims as follows:

1-19. (Cancelled)

20. (Currently amended) An angular velocity sensor comprising:

a sensor element including a vibrating part and a detector part for detecting an angular velocity;

a drive unit including a driver circuit and a monitor circuit, wherein said driver circuit supplies a driving signal to the vibrating part of said sensor element and said monitor circuit receives a monitor signal outputted from said sensor element;

a detection unit including a pair of charging amplifiers or current amplifiers, a differential amplifier and a synchronous demodulator, wherein said pair of charging amplifiers or current amplifiers receive outputs from the detector part of said sensor element, said differential amplifier amplifies a difference in outputs from said pair of charging amplifiers or current amplifiers and wherein said synchronous demodulator detects an output from said differential amplifier in synchronous with the driving signal from said drive unit ~~means~~ and outputs an angular velocity signal; and

an adjusting unit for adjusting a signal from said detector part by coupling a signal synchronized with said driving signal to a circuit, said circuit having an output coupled to said synchronous demodulator, wherein said adjusting unit comprises an adjustor for varying said signal synchronized with said driving signal and an injector for injecting an output signal from said adjustor to a circuit, said circuit having an output coupled to said synchronous demodulator.

21. (Original) An angular velocity sensor as recited in claim 20, wherein said injector comprises a capacitor.

22. (Original) An angular velocity sensor as recited in claim 20, wherein said injector comprises a resistor.

23. (Original) An angular velocity sensor as recited in claim 20, wherein said adjustor includes a ladder network resistor capable of digitally adjusting an amplitude or phase of an input signal.

24. (Original) An angular velocity sensor as recited in claim 20, wherein said adjustor is capable of adjusting an offset of an output of said detection unit by adjusting an attenuation amount of the adjustor.

25. (Original) An angular velocity sensor as recited in claim 20, wherein said adjustor or injector includes a temperature sensitive element for compensating for temperature dependence of the signal synchronized with said driving signal.

26. (Currently amended) An angular velocity sensor as recited in claim 20, further including a compensating unit for electrically compensating for an electrostatic coupling signal generated in an area around the vibrating part and detector ~~detection~~ part of said sensor element, by using a quasi-driving signal.

27. (Currently amended) An angular velocity sensor as recited in claim 20, further including terminals to monitor the driving signal from said driver circuit and an output signal from the detector ~~detection~~ part of said sensor element for adjusting.

28. (Currently amended) An angular velocity sensor as recited in claim 26, further including a stop unit for disabling ~~stopping the driving of~~ said sensor element.

29. (Currently amended) An angular velocity sensor comprising:  
a sensor element including a vibrating part and a detector part for detecting an angular velocity;

a driver circuit supplying a driving signal to the vibrating part of said sensor element;  
a monitor circuit receiving a monitor signal outputted from said sensor element;  
a drive unit for generating stable self vibration in the vibrating part of said sensor element;

a control unit for stopping said self vibration;

a signal generator for applying an adjusting signal to the vibrating part of said sensor element during a working state of said control unit;

a pair of charging amplifiers or current amplifiers receiving an output from said detector ~~detection~~ part;

a detection unit including a synchronous demodulator, said synchronous demodulator demodulates an output from said pair of charging amplifiers or current amplifiers in synchronous with a driving signal from said drive unit and outputs an angular velocity signal; and

an adjusting unit for adjusting an electrostatic coupling signal generated in an area around the vibrating part and detector ~~detection~~ part of said sensor element by coupling a driving signal from said drive unit to a circuit, said circuit having an output coupled to said synchronous demodulator.

30. (Original) An angular velocity sensor as recited in claim 29, wherein said adjusting unit comprises an attenuator for adjusting a signal synchronized with said driving signal, and a capacitor for coupling an output signal from said attenuator to a circuit, said circuit having an output coupled to said synchronous demodulator.

31. (Original) An angular velocity sensor as recited in claim 29, wherein said control unit comprises a switch disposed in a loop of said drive unit.

32. (Currently amended) An angular velocity sensor as recited in claim 29, wherein a frequency of said adjusting signal from said signal generator differs from a ~~the~~ frequency of characteristic vibration mode of said sensor element.

33. (Currently amended) An angular velocity sensor as recited in claim 30, wherein said capacitor is integrated in a semiconductor integrated circuit, said integrated circuit comprises said drive unit and said detection unit.

34. (Original) An angular velocity sensor as recited in claim 30, wherein said attenuator is capable of adjusting a level of attenuation.

35. (Original) An angular velocity sensor as recited in claim 30, wherein said attenuator comprises an amplifier having variable gain.

36. (Original) An angular velocity sensor as recited in claim 30, wherein said attenuator comprises a phase shifter having variable phase shift.

37. (Original) An angular velocity sensor as recited in claim 30, wherein said attenuator includes a digital adjusting unit, said digital adjusting unit is capable of adjusting the level of attenuation stepwise based on a predetermined digital data.

38. (Cancelled)

39. (Currently amended) An angular velocity sensor as recited in claim 29, wherein said driver circuit includes a generation unit to generate a pair of signals for driving said sensor element, the phases of said pair of signals are inverse to each other, and wherein said sensor includes a selector for selecting either of said pair of signals and supplying the selected signal ~~it~~ to said adjusting unit.

40. (Currently amended) An angular velocity sensor as recited in claim 29, further including a selector, said selector selects either of said driving signal or said monitor signal whereby the selected signal is supplied to said adjusting unit.

41-42. (Cancelled)